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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/586,256

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Hiromi Kawamura

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EXAMINER

LAU, KEVIN

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/586,256	<b>Applicant(s)</b> KAWAMURA ET AL.	
	<b>Examiner</b> KEVIN LAU	<b>Art Unit</b> 4147	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 7-17-2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 May 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7-17-2006</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-2, 4, and 7-12 are rejected under 35 U.S.C. 102(b) as being anticipated by **Rodgers et al.** (PG-Pub 2002/0033757).

As per claim 1,

Rodgers discloses a wireless integrated circuit (IC) communication device ***(Paragraph 79: “Transceiver 201 includes antenna 202, tank circuit 204, rectifier 206, receiver 208, transmitter 210, and state machine 212.”)*** which communicates with a reader/writer ***(Paragraph 127: “By transmitting a reply signal in a predetermined reply slot, process 812 as executed in multiple identical transceivers, provides a reply that, on receipt by monitor 124, indicates that one or more transceivers have been enabled to transmit as a consequence of having received one or more suitable access codes.”)***, using a time slot method or a slot marker method ***(Table 2: Description 6)***, the device comprising:  
a slot number obtainment unit operable to obtain a number of time slots which is included in a request command transmitted from the reader/writer ***(Paragraph 127: “counts predetermined slot time durations”)***;  
a response slot information storage unit operable to store a response slot information

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**(Paragraph 125: “Process 806 uses the level code as an address or index into an array stored in memory 808 to retrieve a stored access code.)** indicating a condition **(process 814)** for sending a IC response to the reader/writer in the same time slot as a time slot in which at least one of other wireless IC communication devices sends a response **(Paragraph 172: “Transmitting and sampling may occur during a reply slot.”)**;

a response slot determination unit **(Paragraph 127: “Process 812 is enabled to transmit when the access state provided by process 810 meets or exceeds a predetermined enabling access state (i.e., the transceiver has been addressed to any extent defined by the protocol). Process 812 retrieves a slot count from memory 808 in accordance with the level code provided by process 804.”)** operable to determine a time slot in which the response should be sent to the reader/writer **(process 812)**, based on the number of time slots **(Paragraph 127: “corresponding to the slot count”)** and the response slot information **(access codes)**; and a response unit operable to send the response to the reader/writer in the determined time slot **(Paragraph 127: “transmitting a reply signal in a predetermined reply slot”)**.

As per claim 2,

Rogers discloses wherein the response slot information indicates that responses should be sent in all of the time slots **(Paragraph 144: “Each slot being used for a reply.”)**, and the response slot determination unit **(process 812)** is operable to

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determine that responses should be sent in all of the time slots specified by the number of time slots **(Paragraph 127: “Process 812 then transmits a reply signal in the slot corresponding to the slot count retrieved from memory.”)**.

As per claim 4,

Rogers discloses wherein the response slot information is a random number sequence generated by a predetermined wireless IC communication device **(Table 2 Description 1)**, and the response slot determination unit **(process 812)** is operable to determine that a response should be sent in a time slot **(Table 2 Description 6)** specified by the random number sequence **(Table 2 Description 2)**.

As per claim 7,

Rogers discloses further comprising a response slot information obtainment unit operable to obtain the response slot information **(Paragraph 127: “counts predetermined slot time durations”)**, wherein the response slot information storage unit **(memory 808)** is operable to store the response slot information obtained by the response slot information obtainment unit **(Fig. 8: stored access code)**.

As per claim 8,

Rogers discloses further comprising a timer operable to validate a function of the response slot determination unit only during a predetermined period of time **(Paragraph**

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**123: “Uninterrupted, unmodulated carrier for more than a first predetermined duration may indicate a START signal.”).**

As per claims 9-11,

Rogers discloses a wireless Integrated circuit (IC) communication device **(Paragraph 79: “Transceiver 201 includes antenna 202, tank circuit 204, rectifier 206, receiver 208, transmitter 210, and state machine 212.”)** that communicates with a reader/writer **(Paragraph 127: “By transmitting a reply signal in a predetermined reply slot, process 812 as executed in multiple identical transceivers, provides a reply that, on receipt by monitor 124, indicates that one or more transceivers have been enabled to transmit as a consequence of having received one or more suitable access codes.”)**, using a time slot method or a slot marker method **(Table 2: Description 6)**, the response method comprising: obtaining a number of time slots which is Included in a request command transmitted from the reader/writer **(Paragraph 127: “counts predetermined slot time durations”)**; storing a response slot information **(memory 808)** indicating a condition **(Paragraph 129: “Process 814, upon notice of a begin session command, from process 810, performs any suitable command/reply protocol which may differ in structure and function from the interrogation protocol described above with reference to processes 802 through 812.”)** for sending a response to the reader/writer in the same time slot as a time slot in which at least one of other wireless IC communication devices

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sends a response **(Paragraph 172: “Transmitting and sampling may occur during a reply slot.”)**;

determining a time slot in which the response should be sent to the reader/writer

**(Paragraph 127: “Process 812 is enabled to transmit when the access state provided by process 810 meets or exceeds a predetermined enabling access state (i.e., the transceiver has been addressed to any extent defined by the protocol). Process 812 retrieves a slot count from memory 808 in accordance with the level code provided by process 804.”)**, based on the number of time slots

**(Paragraph 127: “corresponding to the slot count”)** and the response slot

information **(access codes)**; and sending the response to the reader/writer in the

determined time slot **(Paragraph 127: “transmitting a reply signal in a predetermined reply slot”)**.

As per claim 12,

Rogers discloses an integrated circuit used by a wireless integrated circuit (IC) communication device **(Paragraph 79: “Transceiver 201 includes antenna 202, tank circuit 204, rectifier 206, receiver 208, transmitter 210, and state machine 212.”)** that communicates with a reader/writer **(Paragraph 127: “By transmitting a reply signal in a predetermined reply slot, process 812 as executed in multiple identical transceivers, provides a reply that, on receipt by monitor 124, indicates that one or more transceivers have been enabled to transmit as a consequence of having**

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**received one or more suitable access codes.”)**, using a time slot method or a slot marker method **(Table 2: Description 6)**, the integrated circuit comprising:

a slot number obtainment unit operable to obtain a number of time slots which is included in a request command transmitted from the reader/writer **(Paragraph 127:**

**“counts predetermined slot time durations”)**;

a response slot determination unit **(Paragraph 127: “Process 812 is enabled to transmit when the access state provided by process 810 meets or exceeds a predetermined enabling access state (i.e., the transceiver has been addressed to any extent defined by the protocol). Process 812 retrieves a slot count from memory 808 in accordance with the level code provided by process 804.”)**

operable to determine a time slot in which a response should be sent to the reader/writer **(process 812)**, based on the number of time slots **(Paragraph 127: “corresponding to the slot count”)** and a response slot information **(access codes)**

indicating a condition **(Paragraph 129: “Process 814, upon notice of a begin session command, from process 810, performs any suitable command/reply protocol which may differ in structure and function from the interrogation protocol described above with reference to processes 802 through 812.”)** for

sending the response to the reader/writer in the same time slot as a time slot in which at least one of other wireless IC communication devices sends a response **(Paragraph 172: “Transmitting and sampling may occur during a reply slot.”)**; and a response unit operable to send the response to the reader/writer in the determined time slot **(Paragraph 127: “transmitting a reply signal in a predetermined reply slot”)**.



***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 3 and 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Rodgers et al.** (PG-Pub 2002/0033757) in view of **Lundby, SR. et al.** (PG-Pub 2002/0105919).

As per claim 3,

Rogers does not disclose wherein the response slot information indicates that responses should be sent in part of the time slots, and the response slot determination unit is operable to determine that responses should be sent into part of the time slots specified by the number of time slots.

Lundby discloses wherein the response slot information indicates that responses should be sent in part of the time slots **(data portion 90 and pilot portion 78)**, and the response slot determination unit **(Fig. 4)** is operable to determine that responses should be sent into part of the time slots **(Paragraph 25: "In another embodiment of the present invention, referring to FIG. 4, the various portions within time slots 72 of transmit waveforms 74a-n can be separated from each other and transmitted in any of the possible sequences.")** specified by the number of time slots **(Paragraph 127: "Process 812 then transmits a reply signal in the slot corresponding to the**

**slot count retrieved from memory.”).**

At the time of invention, it would have been obvious to a person with ordinary skill in the art to modify Roger’s adaptive transceivers to parts of the data in separate time slots, as taught by Lundby.

The motivation would be to improve the averaging and smoothing of the transmit power **(Paragraph 26: “Improved results can be obtained in the method of separating and reordering the portions of transmit waveforms 74a-n by randomly changing the sequence of the transmissions of the waveform portions. This results in further averaging and smoothing of the contributions to the total transmit power made by the various waveforms.”).**

As per claim 5,

Rogers in view of Lundby discloses wherein the response slot determination unit is operable to determine that responses should be sent in more than two time slots **(Lundby; Paragraph 25: “For example, within time slot 72 data portion 90 can be separated from the remainder of transmit waveform 74a and transmitted first. Pilot portion 78 can be separated and transmitted next after data portion 90.”).**

As per claim 6,

Rogers in view of Lundby discloses wherein the response slot determination unit is operable to determine that responses should be sent in more than two time slots

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whose numbers are in sequence **(Lundby; Paragraph 25: "The remaining portions within time slot 72 can also be transmitted in any sequence.")**.

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEVIN LAU whose telephone number is (571)270-5168. The examiner can normally be reached on M-F 7:30-5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hai Tran can be reached on (571) 272-7305. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Primary Examiner, Art Unit 4147